

Outlook for Fall Season 2010

Recent Rainfall Trends in West Central Texas

From mid-July to mid-August, rainfall has been quite variable across West Central Texas. This pattern of rainfall variability also extends across individual counties. Overall, about half of the area across the Big Country has received near to above normal rainfall since mid-July, while the other half has received amounts which are well-below normal. This is due to the scattered coverage of showers and thunderstorms which have occurred, with locally heavy rainfall. Overall, especially during August, an upper level high pressure system has become the dominant weather influence over the region.

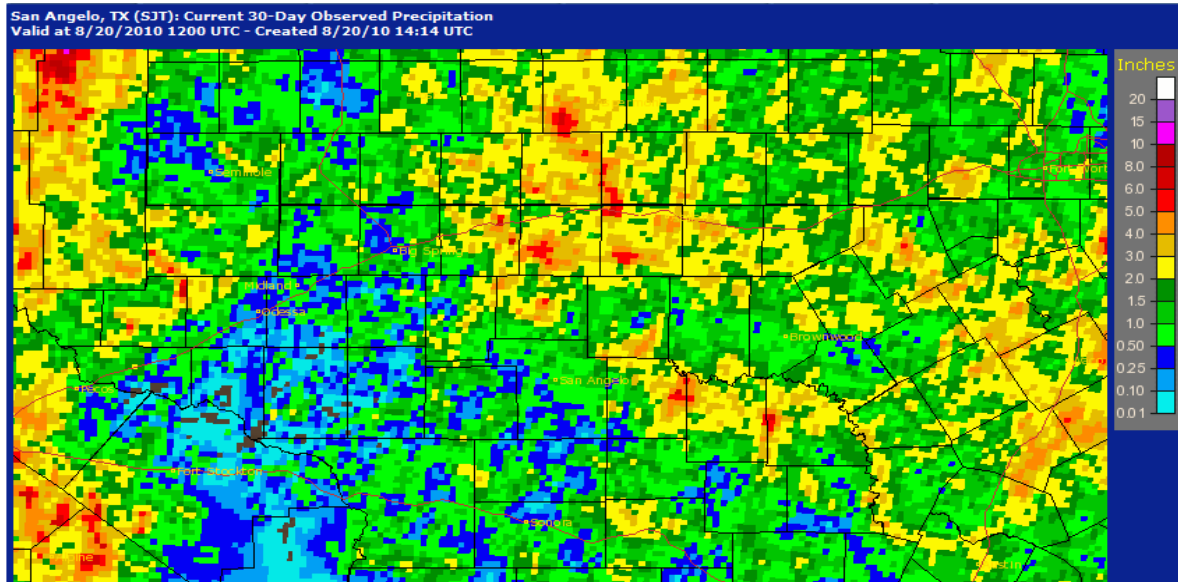


Figure 1: Observed Rainfall for Period July 20 – August 19, 2010

Current Status with the Climate System

El Nino conditions occurred during the past winter season, and then weakened rapidly in the spring. A transition to Neutral conditions occurred by late spring. This was brought about by cooling of the waters in the Equatorial Pacific Ocean. Continued cooling of these waters into this summer season has lead to the development of La Nina conditions.

The Climate Prediction Center indicates that the developing La Nina conditions will continue through the upcoming fall and winter seasons.

Climate Outlook for Fall, 2010

Indications from the medium range models are that the upper level high pressure system over our region may remain in place to the end of August. Hotter and drier than normal conditions can be expected as long as this upper level high pressure system remains in place. The good news is that in addition to May and June, September and October can also be two of the wetter months of the year.

Figures 2 and 3 show the 90-day Outlooks from the Climate Prediction Center, for temperature and precipitation, respectively. These outlooks are for the fall season (September through November). The 90-day temperature outlook indicates an enhanced probability for temperatures to average above normal across West Central Texas. The 90-day outlook for precipitation shows odds slightly in favor of below normal precipitation across western sections of West Central Texas, with equal chances for precipitation to be above, near, or below normal for the rest of the region.

The influence of La Nina (and El Nino) is primarily during the winter season, and typically do not become noticeable before November. Wet weather patterns can occasionally occur across West Central Texas during September and October. Moisture from remnant tropical systems can affect the region in September. If moisture is present in October, upper level disturbances and frontal boundaries can interact with this moisture and bring heavy rainfall.

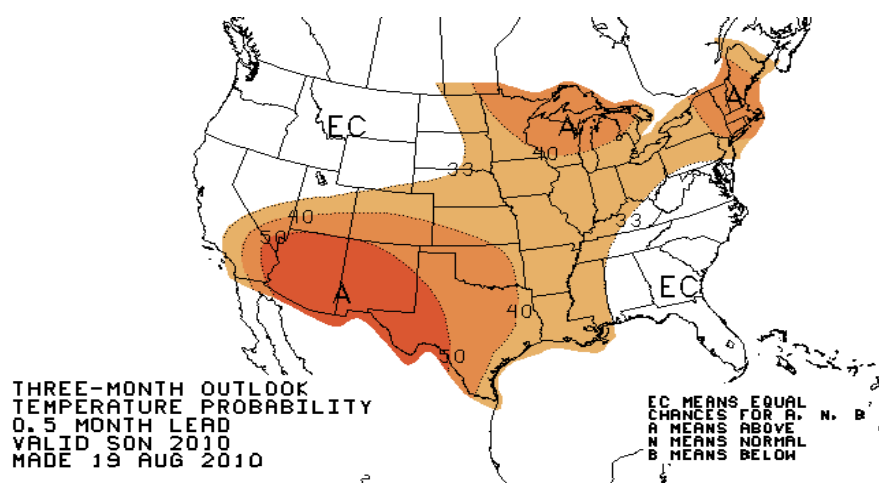


Figure 2: 90-day Outlook for Temperature (September through November)

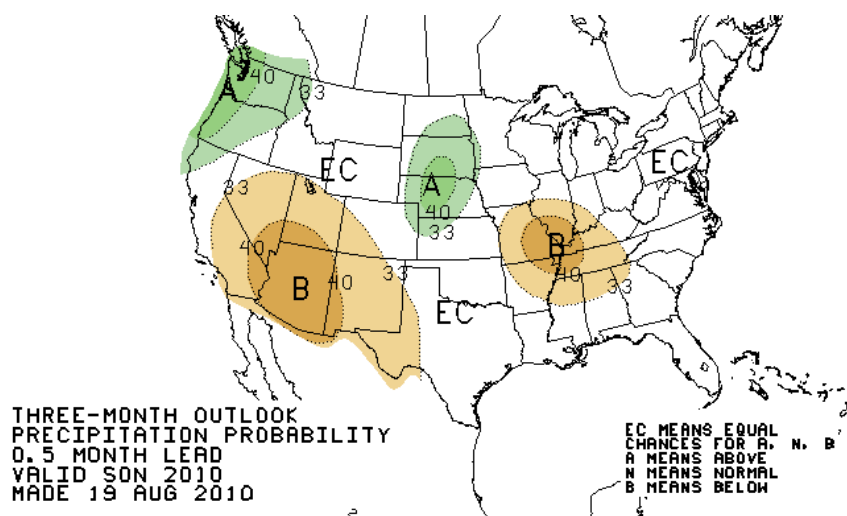


Figure 3: 90-day Outlook for Precipitation (September through November)

West Texas Mesonet

The West Texas Mesonet (WTM) project was initiated in 1999 to provide free real-time weather and agricultural information for the residents of western Texas. WTM is part of the Wind Science and Engineering Center with Texas Tech University. The network has grown to include fifty-nine surface meteorological stations (see Figure 4), one radar wind profiler and one upper-air sounding system. The newest station was just completed near Knox City, Texas (Figure 5).

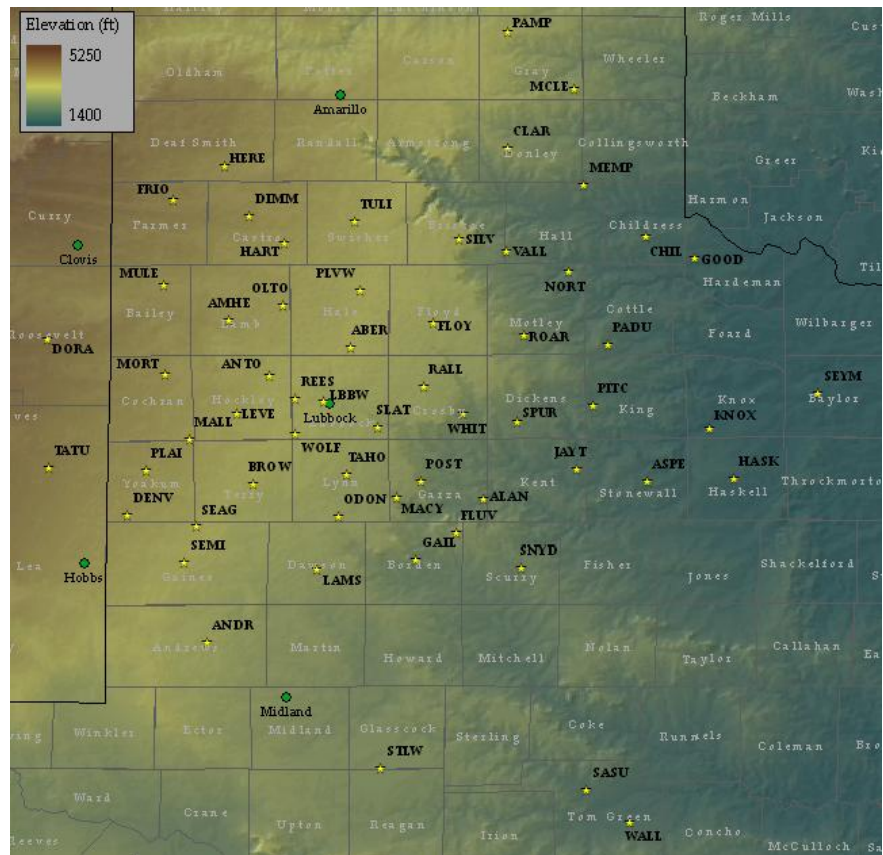


Figure 4: West Texas Mesonet Station Map

Weather information from each surface station is transmitted every five minutes back to the base station at Reese Center (12 miles west of Lubbock). Agricultural data (including soil temperature and moisture information) are transmitted every fifteen minutes. All real-time data collected from the surface stations are available on the WTM main web page at www.mesonet.ttu.edu.

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Figure 5: WTM Station at Knox City